

Education Innovation

Organizational Overview:

Inspire Learning~Empower Learners: that is the vision and commitment of The School District of Arcadia. Arcadia Elementary/Middle School is located in a small, rural, Title 1 school in America's heartland. The 752 diverse students in our PK-8 school represent the heart of the American mid-west; some are the sons and daughters of hard working Wisconsin farmers, some are the sons and daughters of corporate businessmen, some are diligently learning to speak the English language, some are overcoming disabilities; but all are in integral part of our student body and our community. The vision of The School District of Arcadia, inspiring learning and empowering learners, is a commitment and a promise that the teachers and staff faithfully pledge to all students.

Statement of Need:

The majority of 2nd grade students have not attained the proficient level of reading and math performance, based upon the Measure of Academic Progress (MAPs) test administered three times per year. In September 2010, 51% of the students entering the 2nd grade scored below the 50th percentile in reading and math.

In order to address the needs of all students, our school is focused upon developing benchmarks that align with Common Core Standards, implementing RTI (Response to Intervention), and reducing barriers to learning through the REACH initiative (Responsive Education for All Children). As 2nd grade teachers, our main goal is to dramatically improve students' reading and math proficiency; thus, narrowing the achievement gap in education. Our need to improve reading and math skills is urgent; for the sake of our students, we do not have time to waste.

Studies show that Apple iPads create interactive learning environments that inspire learners, encourage creative problem solving, and promote the attainment and retention of skills; the achievement gap will be narrowed. "The use of [iPads] in the classroom holds and heightens student interest,

engages students in learning, and provides yet another means for expressive and receptive literacy” (Murray, 2010).

My plan, as a 2nd grade teacher, is to integrate 5 Apple iPads and applications into daily classroom instruction (as itemized in budget). These iPads will inspire student learning, differentiate instruction, accommodate individual differences in students, and allow students to interact with concepts and data through auditory, visual, and kinesthetic modalities.

Objectives:

Students who enter the 2nd grade, at the 50th percentile, typically increase 10-12 points in their MAPs reading and math scores over the duration of 1 year. For students coming in lower than the 50th percentile, a growth rate of 15 points or greater is aimed at closing the achievement gap. The objective of incorporating iPads into the classroom is to interactively engage students in the learning process and pace students on an individually determined rate of intensive, dynamic, multi-sensory instruction; thus, resulting in student achievement growth in excess of 15 points over the duration of one year. Demonstrating such growth will not only narrow the achievement gap, it will forecast which students will need continued support, intervention, or enrichment.

Program/Activities:

To accomplish the goal of closing the achievement gap by raising reading and math MAPs scores a minimum of 15 points in one academic year, the following iPad activities, remediation, and enrichments are proposed:

- View podcasts- to provide real world demonstrations that integrate concepts and vocabulary into the lessons being taught.
- Create podcasts- an authentic representation of concepts and vocabulary learned by students.
- Post student created podcasts on the school and classroom website in order to provide access other students, parents, and community members.
- Video chat with authors, professionals, and community members- students’ concept knowledge will be broadened as they interact face-to-face with authors, professionals in various fields, and share experiences with their own community members.
- Participate in virtual field trips to places such as the Smithsonian, Central Park, Washington D.C., Grand Canyon, Police Stations, and

The White House- the global environment will become visible and global interactions will be fostered; tolerance will be built.

- Create audio recordings of student reading- students will hear their own reading, intonation, and fluency, allowing for self and peer assessment.
- Participation in Web-Quests- internet applications that encourage cross-curricular integration of reading, math, and research skills.
- Research- science, social studies, language arts, math, and health.
- Utilization of the following Educational Applications can engage students in interactive learning and transform teaching and learning.
 - Reading/Language Arts~ Pocket Phonics, Starfall ABC, Interactive Story Books, Bob Books, Sequencing, Learn Sight Words, ABC Tracer, See/Read/Say, Brain Pop, Word Magic, Interactive Audio Books, Mad Libs, and more.
 - Math~ Magic Math, Motion Math, Flashcard Deluxe, Math Bingo, Mad Math, Animal Farm, IXL, and more.

Assessment Plan and Data Collection:

The MAP (Measure of Academic Progress) assessment is a computerized test that dynamically adapts to student responses. Questions are presented based upon individual student's responses; questions increase or decrease in difficulty depending upon the student's answer. The test results provide educators with detailed insight into student's learning. It is nationally normed and validated by more than 30 years of research. (Aitken, 2010). Unlike standardized tests, the MAP assessment provides longitudinal data for students, it measures growth over time.

In September of each year, second grade students will participate in the 1st of three reading and math MAP assessments. This assessment will provide a base-line indicator of students' strengths and weaknesses in the areas of reading and math. Individual student scores, classroom scores, and grade level scores will be provided from the MAPs assessments. Based upon this information, individual student goals will be established and learning targets will be developed for each student. iPad applications and activities that will enhance individual student learning will be integrated with traditional classroom instruction on a daily basis. Formative assessments and progress monitoring will indicate the need for instructional changes. Students will be formatively assessed at increments of 6 weeks, or as necessary to enhance learning.

In January of each year, second grade students will participate in the 2nd of three reading and math MAPs assessments. This will be an indicator of the progress that students have made thus far in the 2nd grade. At this point, students previously performing in the average or above range, should have increased their scores by a minimum of 5-6 points; those students who were previously performing in the below average range should have increased their scores by a minimum of 7-8 points. Based upon the performance of individual students on this assessment, new goals and learning targets will be established. Individual students, who have not demonstrated adequate growth, as stated above, will interact with the iPad applications and activities at an intensified level of instruction. Formative assessments and other progress monitoring strategies will be used to indicate the need for instructional changes. Students will be formatively assessed at increments of 6 weeks, or as necessary to strengthen and enhance learning.

In May of each year, second grade students will participate in the final MAPs testing sessions of the year. The summative results of this assessment will be evidence of student growth over their one academic year experience in second grade. Students who, in the fall, were performing at or above grade level should show a minimum of a 10-12 point increase in their math and reading scores. In order to make significant progress in closing the achievement gap, students who were below grade level in the fall should demonstrate a minimum increase of 15 points or greater.

Narrowing the achievement gap in education is the overall goal of this grant proposal. Evaluation of the success of narrowing the achievement gap will be based upon the MAPs summative results provided in May of each year. If 80% of the students are performing at or above grade level in May, then the achievement gap will successfully be narrowed, and the integration of iPads in the classroom will have largely contributed to that success. Our students, an integral part of our school and our community, will have been inspired and empowered as learners.

Dissemination:

When innovative approaches to teaching and learning are undertaken by teachers and students, it is important to involve parents, community, and other educators in the process. Upon launching the integration of iPads into daily classroom instruction, parents will be notified via classroom newsletter; a copy of the newsletter and photographs will be sent to the county newspaper (Trempealeau County Times) and to WEAC (Wisconsin Education Association Council). An announcement of the integration of iPads and results of formative and summative assessments will be posted on the classroom web-site, available to the public and linked to The School District of Arcadia web-page (<http://www.arcadia.k12.wi.us>). This educator will also post the project, activities, formative assessments, and

summative assessments on her professional Wiki and Blog. Additionally, an annual PowerPoint presentation will be available for public viewing and uploading from the web-site <http://www.Slideshare.org>. Sharing the information and data gathered during this project will allow parents, community members, and other educators to share in the learning experiences that will take place; thus, witnessing the narrowing of the achievement gap through the project, *Education Innovation*.

Project Budget:

The total request for the project Education Innovation is \$3,122. This will cover the expenses of one reading loft (\$350), four Apple iPads (16 GB, \$630 each), and the following applications: Penultimate (\$1), Keynote (\$10), ABC Tracer (\$2), Word Magic (\$1), Learn Sight Words (\$1), Bob Books (\$2), Audio Books (\$2), Motion Math (\$1), Math Bingo (\$1), and Mad Math (\$2) .

BUDGET ITEMS	QUANTITY	VENDOR	EXPLANATION	TOTAL EXPENSE
Lumber and building materials	Materials list provided in Appendix 1	Lowes Rochester, MN.	Lumber and materials necessary to build the reading loft.	\$348.00
Apple iPads	4	Apple: The Mac Guys, LaCrosse, WI.	Technology integration.	\$2,520.00 (16GB \$630/each)
Applications	4 each of the following: Penultimate, Keynote, ABC Tracer,, Word Magic, Learn Sight Words, Motion Math, Math Bingo, Mad Math	Apple: download from iTunes Store.	Applications provide 1:1 interactive learning environments for students.	\$92.00
iPad cases	4	Apple: The Mac Guys, LaCrosse, WI.		\$160.00 (\$40.00 each)
Total Expenses				\$3,120.00

Sustainability/Future Funding:

“Thousands of apps, endless potential. With thousands of apps at the App Store, you put thousands of learning possibilities at your fingertips.”
(Apple, 2011).

The vast majority of iPad educational applications are free; many cost less than a one dollar-onetime fee. The applications that are free or purchased do not have any continuing or reoccurring costs associated with them. In years to come, it is possible to add more applications to those already available on the iPads; however, those added applications can be obtained for free or for minimal cost, usually less than \$1.00 each. There is zero to minimal costs incurred in using iPads as a tool to narrow the achievement gap in education. Therefore, the total cost of this grant, \$3,120 is the cost of current purchase and future use. iPads are an *education innovation*.

Appendix 1:

The following list of building material was provided by Gary in the building materials department at Lowes of Rochester, MN (Feb. 2, 2011)

Material Quantity	Specifications	Unit Price	Total Price
10 pieces	2x6x8	\$2.87	\$22.96
4 pieces	2x4x8	\$1.79	\$7.16
4 pieces	2x4x12	\$2.89	\$11.56
1 piece	3/4x4x8 plywood	\$37.02	\$37.02
1 piece	3/4x4x4 plywood	\$18.02	\$18.02
1 piece	16"x4' white shelf	\$14.02	\$14.02
3 pieces	White shelf bracket	\$2.48	\$7.44
1 pound	1 5/8 drywall screws	\$1.88	\$1.88
2 pounds	3" drywall screws	\$1.88	\$3.76
2 pounds	10d galv. nails	\$1.48	\$2.96
8 units	¼ "x3 ½" L bolts	\$.10	\$.80
8 units	¼" flat washers	\$.03	\$.24
8 units	¼" nuts	\$.03	\$.24

2 remnant rugs	varies	\$110.00	\$240.00
Grand Total			\$348.00

Supporting References:

Aitken, C., Cannella, J., Chipeco, A. & Cusano, J. (2010) *Measures of Academic Progress: Parent Information Session*. Retrieved from http://www.rtsd.org/cms/lib/PA01000218/Centricity/Domain/26/Measures_of_Academic_Progress-RTSD_Parent_Presentation_Fall_2010.pdf

Apple in Education (2011) Retrieved from <http://www.apple.com/education/apps/>

Murry, C. (2010). *Imagination in Your Pocket: Mobile Learning and Apps*. Retrieved from http://api.ning.com/files/w*wqi2ozqklOm--JOp9XdyulqTm4gh38s4T1WIbtIPucheJcfMvLkzFV0tCIPctrQ58yhC64GwsboVRs3rkXccfnDok6qPhm/SlidetoLearn_mobileapps.pdf